

TOLEDO

"FUTURE GREAT CITY OF THE WORLD"
AS ENVISAGED ALMOST A CENTURY AGO

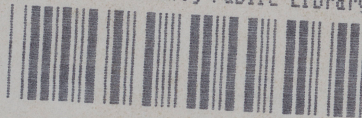
By JESSUP W. SCOTT



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Toledo's Centennial

DURING the celebration this year of the One-Hundredth Anniversary of Toledo, we believe it is fitting that those who enjoy the fruits of the past, should know something of the thoughts of the early pioneers.

Over one hundred years ago one of Toledo's historic leaders, Jessup W. Scott, the founder of what is now the Vocational School, envisaged Toledo as the "Future Great City of the World." It can easily be realized that he was held to be a great dreamer.

How difficult it would be for one of that period to picture the Toledo of to-day. It is just as difficult for the reader to picture Toledo as it will be even fifty years from to-day.

Who can say the vision of that great dreamer of the past may not some day come true.

Such startling changes have occurred in past years, that one who looks back need not be so incredulous as to the future.

So we present for your perusal in the following pages a reprint of Mr. Scott's Booklet—giving his vision about the future of Toledo. It is printed from the original electrotpe plates made by The Blade Company when it produced the first edition so many years ago.

R977.113 Sco Local Hist.
Scott, Jesup Wakeman, 1799-
1874. *Toledoana*
Toledo, "future great city
of the world" #01471156

A PRESENTATION OF CAUSES

TENDING TO FIX THE POSITION OF THE

FUTURE GREAT CITY
OF THE WORLD

IN THE

CENTRAL PLAIN OF NORTH AMERICA:

SHOWING THAT

THE CENTRE OF THE WORLD'S COMMERCE,

NOW REPRESENTED BY THE

CITY OF LONDON,

IS MOVING WESTWARD TO THE

CITY OF NEW YORK,

AND THENCE, WITHIN ONE HUNDRED YEARS, TO

THE BEST POSITION ON THE GREAT LAKES.

BY J. W. SCOTT.

SECOND EDITION (REVISED).

1876.

TOLEDO:
BLADE STEAM BOOK AND JOB PRINT

Entered, according to Act of Congress, in the year 1868, by J. W. Scott, in the Clerk's
Office of the United States for the Northern District of Ohio.

THE AUTHOR'S INTRODUCTION TO THE SECOND EDITION.

The second edition of this pamphlet is intended to be the last of a long series of papers from my pen, designed to call attention to the great future development of the interior trade of our country, and especially to its effect to produce great cities.

As long ago as 1828, pondering on the geographical claims of the interior of our Continent to draw to it a great population, I reached the conclusion that in it would grow up one or more of our largest cities, exceeding all except New York. In 1832, in a small monthly published by me in Norwalk, Ohio, I first made public this opinion with facts and reasons in its support. In 1839, and afterwards, I published several papers on the subject of Internal Trade, and its effect in the development of cities, in the *Hesperian*, a monthly, published by Wm. D. Gallagher and Otway Curry, first in Columbus, O., and afterwards in Cincinnati. The same subject was afterwards more fully treated by me in *Hunt's Merchants Magazine*, of New York, through several volumes, but chiefly in volumes eight and nine. Later, several articles on the subject were furnished to *De Bow's Review*. These articles opened up views at first altogether new, and their novelty excited both ridicule and discussion.

In this pamphlet the author hopes to give the reader clear views of what he believes to be the true theory of the growth of cities. His final conclusions he expects to be received with incredulity or doubt. Of their general soundness, however, he hopes sufficient facts and reasons are furnished to bring conviction to careful and unbiassed readers.

EDITOR'S PREFACE.


QUITE a long introduction to a second edition of this pamphlet was written a short time before the author's death, in December 18.3. when he was revising it for publication. The original manuscript, however, embraced so much matter that was contained in the pamphlet itself, that the editor has thought it advisable to retain only so much of it as seemed due in justice to the author's sentiment of pride in his theory : a theory which he was, I believe, the first to broach, and, throughout a long life, to maintain with an ability which has always been recognized, and a faith in it that nothing could waver. Though his conclusions were at first deemed too wild to be sound, and were laughed at by those who failed to follow his reasoning, they were usually regarded as pretty well demonstrated by those who did follow it. Now, these theories of city growth have become staple thought among intelligent men, so that few persons of the present day know how original and striking they were when projected in Mr. Scott's writings more than forty years ago. Then, barely to suggest that any interior city might some day become a metropolis, rivaling New York, was thought too absurd a stretch of imagination to be entitled to respect. The final conclusions reached by Mr. Scott, in this pamphlet, as the result of his study of causes and effects which will fix the location of the future *greatest* city, may seem in their special application quite as bold to-day as his general theory concerning the power of *interior trade* did forty years ago. Time alone can prove whether his last deductions are less strongly based than the preliminary demonstrations.

In this edition of the pamphlet some matter has been omitted which seemed not essential to the thread of the argument, or likely to embarrass the ordinary reader by too much detail of statistical illustration. I have also added some expressions, as well as some pages of my own, in the body of the pamphlet, on the subject of cheap fuel as one of the primary productions necessary to attract a dense population. This branch of the argument was not overlooked by my father, but, through some unaccountable oversight, was not embraced in his argument as published in the first edition of the pamphlet. I have taken the liberty to interject it, knowing that it would meet the author's approbation were he living.

Toledo, January 15, 1876.

F. J. S.

THE GROWTH OF CITIES.

ITIES are organisms that grow up as naturally as men. They develop where human faculties are most effective, and because these faculties can be more effective there than elsewhere. Like men, too, they are mutually helpful. London could not have grown to be what she is without the aid of Birmingham, Manchester, Liverpool, and other great cities in her neighborhood and in other parts of the world. Proximity to these has given her, and sustained in her, more than one of the millions of her people. On the other hand, London has not failed to return to her sister cities the full measure of benefits received from them. As all the principal cities of the world contribute to the support of London, so they all take tribute of her. Honest commerce gives forth equal benefits, and no commerce that is not honest can be permanently successful.

The earliest great cities were built by a race of men inferior to our own, to-wit: the Mongolian Chinese. Their means for commercial operations—navigable rivers and canals—though imperfect, enabled them to centralize commerce so as to build up cities containing a million or more of people; but, with insufficient unity of government and interest to draw commerce to one great centre. Subsequently, Caucasian and mixed races centralized the commerce of their several national dominions, on the Tigris, Euphrates, Nile, Ganges, and other navigable rivers. These were commercial centres, chiefly for the nations which made them their capitals for, at that period, very little commerce between nations existed. The early cities of the Mediterranean sea were the first that were made centres of any considerable international

commerce; and this was chiefly confined to the waters of that sea. In short, trade, in early times, was confined to very limited regions. It was local and isolated. Gradually, it has grown to be more general, and its leading centres have become more populous and powerful, until, now, a centre for the commerce of the whole world challenges discussion.

The invention of the mariner's compass united, in a measure, the great continents, and brought all lands within the views of commerce. The earth was sailed around, and all its prominent characteristics became known. Slowly, at first, but faster and faster, the productions of different climates and different conditions of people were brought to shipping ports and exchanged. Now, the new and wonderful instrumentalities, steam and electric telegraphs, are making all peoples into one commercial family, and concentrating their commerce in great centres—as London, Paris, and New York. It is a question of great interest whether one of these is to be the acknowledged heart and brain of the world's commerce; giving to the word commerce its widest signification. As yet commerce has not become organized as a complete unit, and, therefore, has not a universally acknowledged central city; though its development, within the last fifty years, has rapidly tended to centralization in the Island of Britain and the city of London. Paris is, and has long been, the acknowledged social centre of the world, due to its supremacy in the elegant arts and the amenities of high civilization.

Where will, probably, grow up the great cities of the future? I say, probably, for new elements may come into the calculation that are now unknown or unappreciated.

I shall assume that a city is an organism, springing from natural laws as inevitably as any other organism, and governed, invariably, in its origin and growth, by these laws. I shall also assume, and endeavor to prove, that these cities are to be on the North American Continent, and not far distant from the centre of the industrial power of this continent, *when well peopled and its resources well developed*, and in positions of easy access to commerce with other peoples with whom we exchange productions.

The growth of a city is analogous to the growth of a man.

The first and greatest necessity of a human being is food. The next is clothing; after which comes shelter and fuel. Food, clothing, houses and fuel. These are the prime and essential requisites. There can be no civilized life without all of them. But these are products of labor and skill. Where can labor and skill be used to greatest advantage, in the production of those necessities? The solution of this question will go far to fix a natural location for a great city.

But there are other necessities of *high* civilization, without which there can be no *great* city. There must be easy communication between it and other industrious and populous communities; good navigable channels, and, in our day, good roadways over the land. There needs be cheap and quick means of transportation, in order to effect that facile interchange of commodities which sustains high civilization. In discussing the question of the location of the future *greatest* city, it will be assumed that our continent will be settled by an industrious population, and most densely inhabited where food and other primary needs are most certainly attainable, and labor receives its best reward.

It is difficult for many persons to bring their minds to contemplate, as possible, a future differing materially from the present and the past. It is only those who have studied the course of human progress, and its tendency towards a more perfect society and a more general union of races, in commercial operations and social relations, who can appreciate, at their proper value, facts and arguments that go to show results differing from, and greater than any heretofore manifested. As men become more enlarged in their views, and have a truer comprehension of the laws governing matter and mind, they become fitted to more extended relations with their fellow-men. It is the same with societies and nations. They have more and more points of friendly contact, so that tribes grow into nations, and nations are enlarged to embrace all homogeneous races. As nations interact and mingle, international amenities ripen into a feeling of brotherhood, so that it is only following out the course of events to anticipate, as the crowning result, one great centre—one city of the world—which shall be the acknowledged focus and radiating point of its

wealth, intelligence and moral power. Such cities London and Paris are striving to be, and, in a qualified degree, are. They will approach that condition, when, in a few short years, there shall be communication by connecting telegraphy with all quarters of the globe, so that people the most distant may hold daily intercourse with each other. These cities, for a time, will remain the world's acknowledged chief centres for thought and action, and with increasing power.

But events in our time evolve rapidly, and especially in city growth. In a period of no more than half a century, the western movement of population and wealth, in one swelling tide, will have increased the power of the chief city of the Western Continent to a degree enabling it to overshadow the greatest European capitals. London and New York have each an established rate of increase, as proved by successive enumerations, in each decade of the current century. London has grown at a rate that doubles its number once in forty years, commencing in 1801. Carried forward through three duplications, it exhibits the following results: 1801, 95°,863; 1841, 1,917,726; 1881, 3,835,452; 1921, 7,670,904. New York, commencing in 1800, with 60,489, has, with its dependent suburbs, doubled its numbers, on an average, in 15 years. Carrying that rate of increase up to 1920, its numbers will be 15,484,784. This will be considered an incredible result. With present and improving means of communication, the ability to grow and support great cities, as the country becomes populous and rich, must be admitted. Even with present means of transit, the outer boundaries of city and suburban residences extend tens of miles from the business centres of our cities. A radius of fifty miles will not be too extended to embrace, before the end of the present century, the people drawing their chief support from great cities. Within two hours' time all within that radius may be carried to or from the chief business centre and their homes; most of them within one hour. There is nothing, therefore, *in the greatness of this number*, to warrant distrust of its attainment. If its growth shall be checked, it will not be because our cities, *generally*, will receive a smaller proportion of our population than heretofore. It were easy to prove that the proportion will be increased. If New York fails of its

proportionate growth, it can only be because western rivals may gain at her expense.

The movement of men and money, in a constantly broadening and deepening current, from the Atlantic States, westward, into the interior of our continent, compels us to anticipate a successful rival, to grow up within that broad plain embracing the basins of the St. Lawrence and Mississippi, and the country north of them. We are also compelled, by the evidences furnished during forty years, of the power of lake cities to concentrate the commerce of the great plain, to believe them destined to secure the location of the great interior city. More and more they have drawn trade from the great river valleys of the plain, proving the superiority of their position to that of cities on the borders of the great rivers. The general direction of the lakes being east and west, and so in the line of the great commerce of the world, gives the cities on their borders, placed in or near this line, very great advantages over all others.

There is a philosophy of climatical influence, on the character of man, animals and plants which can be well developed, exemplified and illustrated, only, by a familiar knowledge of these departments of natural history. As I have not that knowledge, I will only express my belief that the best possible climate, for the attainment of their highest and best characteristics, is that which requires the exertion of their utmost powers to *overcome* the obstacles which it interposes to their development, in a region where the natural capabilities of the earth are such as to give the stimulus of success to reward such exertion. Caucasian man has proved that climate, for himself, and the animals and plants promotive of his highest good, to be within a few degrees of the annual isotherm of 50 degrees Fahrenheit.

THE ZONE OF GREAT CITIES.

Disturnell, the geographer, in a paper read before the American Geographical and Statistical Society, of New York, in 1860, on the influence of climate, on the growth of cities, gives a list of cities, with their population, in different *zones of climate*. In the middle zone, having a mean annual temperature between 48 and

52 degrees, Fahrenheit, his list embraces most of the great cities of the world, having an aggregate population of 9,233,984. His list of cities in the northern zone, having a mean annual temperature between 40 and 48 degrees, Fahrenheit, embraces an aggregate population of 2,819,418; and in the warmer zone, having a mean annual temperature between 52 and 60 degrees Fahrenheit, an aggregate of 5,850,000. The zone of temperature between 48 and 52 degrees is a narrow belt, which passes through Astrachan, Odessa, Vienna, near Paris, through London, Liverpool, Dublin, New York, near the south end of Lakes Erie and Michigan, through Omaha, on the Missouri, and bearing south on the elevated plateau of the continent, thence takes a north-west direction to the Pacific, at the south end of Van Couver's Island. This zone is much wider in central and Western Europe, and on the Pacific coast, than elsewhere. Its course through Asia is nearly on a line of latitude of Pekin, and is not wide. The cities of the warm zones are making a slower growth than those of the coldest zone; but those in the middle temperate zone are growing much faster than either of the others. For example: London is put down at 2,357,765, and now contains over 3,250,000. Paris is set down at 1,153,262, whereas a recent enumeration gives it over 2,100,000. Chicago is set down at 100,000, and now has three times that number. New York and Brooklyn are set down together at 835,000, whereas they number at least more than 1,350,000.* Other cities in this list have shown a similar growth. It will not be an over-estimate of this favorite city belt to set down its present city population at 20,000,000. This is greater than the city population of all the rest of the world, which is approximately estimated as follows:

In the Cold Zone, north of an average of 50 degrees, Fahrenheit.	4,000,000
In the Warm Zone, south of an average of 50 degrees, Fahrenheit.	3,000,000
In the Middle Zone, between the above lines.	20,000,000

The current of population follows, nearly, lines of equal temperature, with a tendency to move from excesses of heat and cold toward the zone of 50 degrees Fahrenheit, mean annual temperature. This zone, according to Disturnell, has a mean width of

* By the census of 1870 New York and its suburbs, within a radius of twenty miles, contained a population of more than 1,650,000.

less than two hundred miles. Its north boundary line in the United States passes through or near the cities of Albany, Detroit, and Chicago, and thence westerly on a line north of west to Vancouver's Island on the Pacific. The south boundary line, in North America, passes through or near the following places: Philadelphia; Columbus, Ohio; Springfield, Illinois; St. Joseph, Missouri; Santa Fe, Great Salt Lake, Dalles, Astoria. In Europe, its north line passes, from a point a little north of the Caspian Sea, westward, through the cities of Posen, Berlin, Hamburg, Newcastle, Glasgow, and Belfast. Its south line passes westward from the outlet of the Sea of Asaf, near Buda, Munich, and Orleans, to the Atlantic, at Brest, in France.

I give * below figures made up from the United States census of 1860, exhibiting the operation of the power of climate on city growth, within the belt embraced within the annual isotherm of 48 and 52 degrees Fahrenheit. This zone, varying in width from 120 to 200 miles, embraces but a small portion of our country, but it concentrates within its limits a much greater city population than all the broad expanse on both sides of it.

The power of climate to control human movements and habitation, and to concentrate population in the region best adapted to the development of the best energies of man, is manifested more and more as knowledge extends, and the means to remove to such best region, become more and more ample. The tide of human movement is westward. It has culminated, or is culminating, in Europe, on its extreme western verge, in the middle climate zone, in the great cities of England, Germany and France. New York, Philadelphia, Buffalo, Cleveland, Toledo, Detroit, Chicago, Davenport, St. Joseph, Omaha and Denver are on the route of its future movement. This fact may be of great importance to persons seeking new homes.

* Sum of the population of cities of over 10,000, by the census of

186c..	{ Within the belt above described	4,312,700
	{ Out of the belt, north and south.....	1,961,729
187c..	{ Within the belt	6,306,781
	{ Out of the belt, north and south, including Canadas and California. .	2,606,052

It will be seen that the census of 1870, published since Mr. Scott wrote the above, shows that *an increasing percentage* of the city population of the United States and the Canadas is embraced in this isothermal belt.—ED.

There has been a prevailing error respecting the relative merits of climates, in the production and modification of the best plants and animals for the use of man, and, by their use, of the best race of men. Many suppose an equable climate, having the least deviation from a uniform temperature, is best for man and the productions which go to make up human growth and social development. Others believe a warm climate with moderate variations of temperature most favorable to human happiness and political progress—a climate existing chiefly between the tropics and latitude 38.

In the infancy of society, these views were more nearly correct than they are now. In the early stages of progress from a savage towards a civilized condition, a semi-tropical climate was, evidently, best calculated to enable the first steps to be taken towards a civilized condition. Tropical man, near the ocean level, lived with little need of exertion of body or mind. Fruit, growing without his labor or care, supplied him with food; clothing was not needed to guard him against cold. Little labor was required to give him all needed shelter. And so, there being no necessity to labor, or to invent, he lived, and he still lives, in a condition but a few grades above the beasts which surround him. The man of the warm climate, outside of the tropics, has need of more exertion and contrivance to save him from the pains of hunger and cold, and so he, from necessity, develops more active faculties, and becomes more of a man than the man of the tropics; yet a moderate amount of exertion and contrivance serves his turn, and he progresses slowly towards a higher civilization. Next, above the man of a warm climate, comes the man of higher latitudes, and countries but little elevated above the ocean level. His climate is, comparatively, equable, but has enough of the cold of winter and the heats of summer to make it necessary for him to put forth a large measure of activity and contrivance to keep comfortably fed, clothed and sheltered. The man of north-western Europe has made greater advances in power, by virtue of his necessities, and the blessings resulting from them, than the man of the lower latitudes, whose wants are less numerous and urgent. But he is not the best possible man. There is a climate which has the capacity to produce a better man. That climate is

characterized by Humboldt, as an *excessive* climate: and, also, as a *continental* climate. It is a climate of extremes of heat and cold, of very hot summers and very cold winters, accumulating during the cold of winter a nervous susceptibility in animals, and something analogous in plants, which enhances the effect of the great summer heat, in the evolution of vegetable growth and of animal activity and power. It is believed to be historically true that the best race of man, and the plants and animals best adapted to maintain his superiority, originated in a continental climate, having a great range of temperature. When he has changed his residence and made a new home, in hot or equable climates, he has, uniformly, deteriorated in character, and it has been, only, when he has migrated to a climate like that of his origin that he has made the best progress in civilization and true manhood. The elevated regions of this excessive climate, in the middle latitudes, are believed to be the best for this race of men. North America affords a larger area appropriate for the development of this race than the Eastern Continent. In this continent will be brought together the largest and most active portion of this race, and on its great interior plain will grow up the greatest aggregation, the greatest nation, the noblest empire of man, and the greatest city. Its climate gives the greatest nervous and muscular power to man, and the animals best adapted to his wants. It enables him to grow the greatest variety of best cereals, the best fruits, and the best animals for his use, as well as the best material for his clothing and shelter. No other region of the globe, of like extent, can equal it, in its capacity to produce the best fruits adapted to the health and enjoyment of the best race of men. Humboldt, in his "Aspects of Nature," testifies to the superiority of the grape grown near Astrachan, in the excessive climate of eastern Europe, near latitude 46 degrees, over the best table grapes of Spain, Italy and France. Some of the best apples and pears in the world, originating in accidental seedlings due to the climate, are grown in the United States. There are small portions of interior Europe and Asia in which the continental climate may equal, in life-giving power, the best portions of the United States, but they are less favorably placed for commerce, external and internal; and they live under inferior political organizations.

The best climate and soil for the best race of men in North America are, in extent, ample for the support of all of that race now living, and all its augmenting numbers for centuries to come. It contains, also, climates and soils adapted to the constitutions of other and inferior races. The black race not only has health and a rapid increase, in the warmest portions, but it improves in moral and physical condition; and there are considerable sections where Asiatics, Mongolian and Malay, will probably find a convenient resting-place. The rapid movement, in the direction of unity of commerce among the human family, is not inconsistent with diversity of race, location and occupation, but is in accordance with them. Two modern agents—steam and electricity—greatly favor the movement, and we may confidently expect, not only a great extension and improvement of these agents, but the introduction of others of still greater potency. More than ever before, the near future is pregnant with great events. Even the next generation may cease to wonder at the advances, in power, of their fathers, in the much greater progress of their own time.

With the present agencies, and in the present inchoate condition of the unitary progress of the world's commerce, London comes nearer being its heart and brain than any other city. Until New York becomes more populous and rich, she cannot hope to give the chief impulse to the world's commerce. But, so surely as the laws of nature vindicate themselves, in the production of their recognized effects, so surely will New York supersede London. Before the year of grace, 1900, thirty-two years from this time (1868), the writer believes that New York will commence her career as the world's central city.

How long will it be before one or more of her western children will dispute her supremacy and dethrone her?

Let us calculate the progress of the western movement of empire. Let us estimate the increase of population and wealth, as it flows westward, and learn, approximately, where will be the centre of its power in 50 years, in 75 years, in 100 years.

As a basis of this calculation it may be well to note some principles and facts, either self-evident or too well established to need proof.

Commerce will meet to exchange equivalent values and tonnage at the place most accessible and convenient.

This principle applies as well to continents as to neighborhoods. It is a fact that home commerce, in every civilized nation, is many times more important and multiplied, in its transactions, than foreign commerce. This predominance, in amount and value, in countries of great extent and diversified productions, is great in proportion to range of climate and capacity to produce articles of commerce, and the natural and artificial facilities for interior transport ; and the predominance increases with the increase of civilization and accumulated wealth.

Let us apply these principles.

It is a well-established fact that the centre of industrial power, as well as the centre of population, of North America, is moving steadily and inevitably westward of the former and present location ; and it can hardly be doubted that it will continue to move in that direction until it shall have approached the centre of the natural productive power of the continent, and of its external relations.

It has not been without controlling natural laws that London has become the principal centre of the world's commerce. If the various means of transportation are considered, it will be found that it is more convenient for the meeting of commercial products exportable from all parts of the commercial world, than any other city ; that is to say, it is more nearly *central* to the present commercial power of the world than any other *great* city. It is more central to the home commerce of the United Kingdom than any other commodious port. This is a great advantage, for the home trade of the British nation is very great ; many times greater than its foreign commerce. It is central between the commerce of the Eastern and Western Continents, considering how greatly the magnitude of that of the Eastern exceeds that of the Western.

Will it remain central ?

There was a time when the island of Britain was on the extreme western verge of civilization and commerce ; and, as said by Virgil, divided from the whole world besides. Since that time

the tide of men and commerce has moved steadily westward. That tide, in constantly increasing volume and rapidity of flow, continues to move westward. This continuing, the certainty of its reaching a better centre of commercial power than London seems inevitable. But, to this end, it must cross the Atlantic. What are the indications that it will, on this side, find its destined place? If it is admitted that London must be superseded, what intelligent man will hesitate to name New York as the successful rival? Forty years ago—in 1830—London, with its numerous suburbs, contained about a million and a half of people. It has doubled its population since, making its period of duplication about forty years. New York, with its dependent population included, by which I mean those supported by the business of New York, and having their residence in suburban places near it, as well as in its corporate limits, will, in 1870, have a population greater than London in 1830. New York appears to have a law of growth which doubles its population in from fourteen to sixteen years. If we allow London a future growth of two per cent. a year, and New York of five per cent. on a population of three million for the former, and half that number for the latter, the result will be in 1885, fifteen years from this time, that London will contain, in round numbers, four millions. New York will then contain over three millions. Allowing the same rate of increase up to 1900, the two cities will be nearly equal, New York numbering 4,849,387, and London 4,823,514. The United States, at that time, will contain over seventy millions of people; and the British Colonies, bordering the States on the north, will contain some ten millions. Together eighty millions. Long before that year Eastern Asia, embracing the great Empires of China and Japan, with all the coasts of the North Pacific Ocean, will have become practically nearer to New York than to London by means of railways across the American Continent.

The centre of commercial power moving westward will, somewhere, in time, be arrested. It will find a resting-place in North America; for it is not to be supposed it will, in its westward course, cross the Pacific to the inferior races of Eastern Asia. Nor is it likely to reach and make a lodgment at any port on our Pacific coast. The vast arid and mountainous regions of the

western half of the continent, and the unequaled extent of fertile lands on the eastern half, fix its location, inevitably, on the latter. Will New York, then, be the *permanent* emporium of North America and the world; or will its ultimate resting-place be westward of her position? The writer believes, after giving New York the leadership over London, the final supremacy among the world's cities, will settle on a place by the shore of one of the great lakes, central to the greatest industrial and commercial capabilities, and the greatest extent of fertile lands in the North Temperate Zone of the Globe.

But before entering on the consideration of the claims of an interior city to become, at some future day, the successful rival of New York, as the chief centre of the world's commerce, it will be in order to inquire on what grounds, beside the more rapid growth of New York in the past, it is claimed that it will become greater than London.

The main, the controlling reason is that it is getting an increasingly larger home trade than London, because our home population, now greater, is increasing nearly three times as fast. It has been demonstrated, on our railway lines, that the way-traffic between city and city, and station and station, in all the settled portions of lines of any considerable extent, greatly preponderates, in amount and profit, over the through traffic, even where the termini are great gathering points of commerce. No statistics at hand enable me to state what are the proportions of the home trade of New York compared with its foreign commerce, or what proportion of its population is supported by the home trade, and what portion by foreign. If we estimate the proportion of the former to the latter as fifteen to one it will not be overstated. If this is so, then the forty-five millions of people in the United States and British Provinces, making New York their principal commercial metropolis, will be equal, for advancing its growth, to six hundred millions of outsiders living in foreign lands. It is because population and wealth increase much faster in our country than in England, and, in consequence, its home trade increases more rapidly, that New York grows faster than London, and not because it secures a greater amount of foreign

commerce ; for, in that respect, London is yet far ahead of New York.

The indigenous commerce of the United Kingdom, which centres in London, may now be nearly as great as that of our States centreing in New York, as the number of people sustaining it is about in the proportion of 30 to 38. The industry of our people, however, is more productive than that of the people of the United Kingdom, as statistics show a duplication of our wealth in less than ten years, which is about half the time required for doubling theirs.

In the short period of thirty years allowed New York to become more populous than London, our numbers, now thirty-eight millions, will have augmented to over seventy-five millions ; while the United Kingdom will only, at its normal rate of increase, grow up from thirty millions to less than forty millions. Before the end of that period the British Provinces, beyond our north boundary, will have become a part of our commercial system, if not a component part of our nation. These Provinces will then contain nearly ten millions of very industrious, hardy and intelligent inhabitants, swelling our number for the home trade to eighty millions. Surely, in the light of all these considerations, it is not presumptuous or premature to forecast the superiority of New York to London, and its claim, in 1900, to be, more than any other city, the heart and brain of the commercial world. That a city of that character will, in the regular course of human events, exist, seems to me certain. That it will be developed on the Continent of North America, and, finally, rest on the best point on the border of one of our great lakes, seems to me equally certain.

The Continent of North America has a remarkable depression between the Appelachian Mountains, on the east, and the Rocky Mountain ranges, on the west, and extending from the Gulf of Mexico, on the south, to the Arctic Sea, on the north. This constitutes *the great interior plain* of the Continent, and embraces most of the elements provided by nature to sustain the bulk of the population hereafter to inhabit the Continent. In all its immense length and breadth it is interrupted by no mountain barrier, and

has, within its eastern portion, no barren waste. Almost everywhere it is fertile and well-watered. To enable commerce among its people to be more rapid and cheap, it is provided with navigable rivers and lakes to the extent of tens of thousands of miles, and its unobstructed surface may be traversed everywhere by cheaply-made railroads.

The first and greatest necessity of man is food. At what point or points in the interior plain of North America, can this be obtained, in quantity to feed a large city, at the cheapest rate? It seems to be proved, by the results of the last twenty-five years, that the two most prominent of these points are Chicago and Toledo; as these have been the primary gathering ports of the greatest amounts of the most needful articles of food; and they seem to have such commanding positions for commerce, interior and exterior to our country, as to justify the claim to precedence over all others. The annual receipts of breadstuffs at these cities, for export, has, for several years, exceeded seventy millions of bushels. At ten bushels to the individual, this would feed seven million people. That number, therefore, in addition to their present population, could have been fed, in these cities, at less cost than at any other place to which this grain was transported, *by all the cost of that transportation.* New York, Boston, and other Eastern cities, consumed and distributed most of these seventy million bushels of food, and their various industries were sustained by it, at a cost of not less than ten million dollars beyond its value, in these interior cities. If these industries could have been carried on as well in Toledo and Chicago, as in New York and Boston, those engaged in them, in those exterior cities, lost the ten million, in consequence of not being at the place where the cheapest bread could have been obtained. But, breadstuffs form but one article of necessary food. Next to them comes meat. It will be a moderate estimate to rate the animal food sent annually from Chicago and Toledo, and consisting of cattle, sheep, live hogs, dressed hogs, beef, pork, cut meats, lard, butter, etc., as amply sufficient to supply the seven million people which their surplus breadstuffs provides for. These articles, valued at Chicago and Toledo, at forty-five million dollars, probably cost

the consumers, in the Eastern and European cities, not less than fifty-five million, making another ten million added to the cost of living in those cities that might have been saved, if the consumers had lived in, or near, these lake cities. These and other estimates are not designed to be exact, but sufficiently so to justify the position we take. Doubtless, many of the consumers, in Eastern and European cities, can afford to pay this additional cost of food, in consideration of the more perfect organization of labor, and other advantages, in the older cities. If, then, we modify our estimate of the loss of the seven million excrescent population that are fed on far-fetched food, and make it half what is set down above, so as to reduce it to ten million, the truth will, probably, be understated.

According to Dr. Chalmers "the bulkiness of human food forms one of those obstructions in the working of the economic machine which tends to equalize the population of every country with its food-producing power." Converting the corn and the grass crops into animal food has, measurably, removed the obstacle of bulkiness to the extensive export, from the Lake States, to the more expensively-fed population of other countries. Still the fact remains that the consumers of this animal food, and of the seventy million bushels of our breadstuffs, in Great Britain and in our Eastern States, year by year, must pay the cost of transportation, and profits, from Chicago and Toledo, over and above what would be the cost to them, if located in these cities. It is not too high an estimate to put this additional cost at thirty-three and one-third per cent. The consumers inevitably gravitate to the great centres, where food is gathered in, and there pursue their avocations to better advantage than in the cities which send far for their food. It is important properly to estimate the rapid growth of interior cities, and their ability, in consequence, to consume a large portion of the surplus of agriculture which is now so great. The lake cities, in position and climate, are unequalled for the advantages they offer the immigrant. They are central to the best regions of the earth for the growth of the best fruits, grains and animals, to feed men; and, with these advantages, and a healthful climate, may claim to be the nurseries of the densest

population. The food, as heretofore, will attract to it the mouths to feed upon it. Labor *will* seek cheap food with good wages. It has always done so. The lake cities, although but germs of what they are to be, have exhibited, in their growth, the truth of this principle. No other commercial centres have been so rapidly peopled, in their early life. The attainment of cheap land and cheap food has been the chief cause of this large increase.

Next to food, as a prime necessity, comes clothing. The chief materials of this are wool, cotton, lint and leather, for all conditions of people. Wool and lint will be bought cheaper in the lake cities than in the Atlantic cities, and raw cotton as cheaply, in Chicago and Toledo, as at any leading eastern city. As the operative will be fed on cheaper food, the manufacturers of these articles will, for this and other reasons hereafter given, find these lake cities a good location for factories. Situated centrally to the best grass and grain growing region of the continent, Chicago and Toledo will, naturally, concentrate in their markets a large portion of the wool grown in the country. The production of flax and hemp will, probably, in proportion to their use, be as greatly within the commercial control of these cities as that of wool, the climate and soil being well adapted to their growth. Cotton will, probably, in a few years, be grown west of the Mississippi, as largely as east of it, and will find its primary markets, in largest quantity, at Memphis, Vicksburg, New Orleans, and other favorable points on the banks of the western tributaries of the great river. From these cities it can be delivered to the manufacturer at Chicago and Toledo at less cost than to the manufacturing cities of New England and New York.

Next in importance to cheap food and clothing in determining the movement of population, and the points where men will concentrate in greatest numbers, are cheap building materials and cheap fuel. Where in the world has more wealth of lumber been placed on the great highways of commerce than in the pine-lands along all the shores of the great lakes? Where a finer region of hard woods than stretches for hundreds of miles in all directions from the west end of Lake Erie? Where is brick and lime cheaper or stone more easy to quarry than everywhere upon the

borders of these lakes? In short, where upon the globe can human labor provide more cheaply all needful shelter for its working hives? But in this zone of excessive temperature, cheap building materials might not alone aid to fix the densest population upon it were fuel scarce. Now in the early settlement of a wooded country, cheap lumber implies cheap wood for fuel; and long before the swelling tide of settlement could make this scarce the geologist has indicated the existence of boundless stores of coal all along the line of the favored zone of population into which we have only to enter as into a cellar full-stored for us.

The coal-fields which seem destined to supply the States between the Ohio river and the lakes, are :

First, those of Pennsylvania, which, in quality and quantity, and variety of qualities, are not excelled in the world. No other hard coals have been discovered in this country equal to the anthracite coals of Pennsylvania. By the Ohio river these coals are delivered at the lowest rates along its shores. A short railroad transit brings them to the free waters of the lakes.

Second, the great coal-field of the State of Ohio, stretching from near its north-east corner to near its most southerly point, and embracing at various points the most valuable and varied qualities of bituminous coals found west of Pennsylvania. "Briar Hill" coal is a standard brand of this coal, and equally valuable for making iron, or for making heat. In places, as at Straitsville and the Hocking Valley end of this field, the coal occurs in beds of such thickness, excellence, and unequalled facility for quarrying, that the miners are enabled to put it on board cars at a cost twenty-five per cent. below the cost at any other mines.*

Third, the coal-field of South Indiana, from which an excellent quality of block coal has been obtained. It has entered into effective competition with the Pennsylvania and Ohio coals only in the immediate neighborhood of where it is quarried. The

* In Vol. II. of the State Geologist's Report on the Geology of Ohio, "the great vein" of this coal-field is thus alluded to: "This is probably the most interesting and important of all our coal seams. It attains greater thickness, occupies a wider area, and in its different outcrops and phases supplies a larger amount of good fuel than any other. . . . South of the national road this vein acquires such magnitude and excellence that it quite overshadows all the other coal seams of the State."

cost of quarrying this coal will probably prevent its competing to any great extent with the coals of Pennsylvania and Ohio.

Fourth, the coal-fields of Illinois, which do not develop, either in quality or cheapness to compete, even in Chicago, with coals that come from Pennsylvania and central Ohio.

Cleveland, which is shown by the census of 1870 to be nearer the center of population (if we include the Canadian Dominion with our own country) than any other large city, * has felt the impetus to her manufactures by the receipt of cheap coal to an extraordinary degree. She draws her iron from Lake Superior, to the north of us, and from interior mines south and southeast. It has been found more profitable to bring the coal to the lake shore to meet the ores that come from various sources by water than to ship the ores inland to meet the coal. So Cleveland has gained heavily on Pittsburg as a point for manufacturing iron; first, for the reason just stated, and secondly, because the facilities of shipping the manufactured iron by water as well as by land give the lake cities an additional advantage. This fact shows the power of the lake towns to draw business from the interior towns by means of the competition of the two rival systems of transportation by water and land; the lakes showing more power to produce this result than the rivers. Cleveland has possessed both inherent and adventitious power to make the most of her advantage over Pittsburg. The adventitious power has been the capital which her early reputation for beauty brought her by the influx of wealthy business men from smaller surrounding towns, and the large investment of that capital in the very valuable iron mines of Lake Superior. That iron, and her cheap coal, have been the most important factors in the rapid increase of her manufactures, population and wealth. Her proximity to the oil fields, and the immense development of the manufactures of that product have also added very largely to her prosperity. In the oil trade she is likely to retain her lead, as compared with any of the lake cities. But in the manufactures which are built up by cheapest coal and

* The center of population of the United States alone by the census of 1870 is shown to be directly south of Toledo about 175 miles. Taking in the Canadas as a part of the great commercial system treated of by the author, would move the center of population to near Cleveland.

iron, *in connection with the greatest facilities for the cheapest distribution of the manufactured articles*, she must slowly succumb to such points as Toledo and Chicago. These cities have the same water facilities for procuring iron ores; Toledo has the same advantages of cheap coal, and both cities have superior advantages for the distribution by land of the manufactured products. This advantage it needs but a glance at the map to perceive. And when in addition it is observed that Toledo has artificial water-ways, south and southwest by many hundred miles of canals, as well as by a complete system of radiating railways, the advantage will appear more complete.

By rail the hard coals of Pennsylvania are nearer to Cleveland than Toledo by 120 miles, and nearer to Cleveland than Chicago by 350 miles, yet the fact that the anthracite coal supplies of all three cities are mostly laid in during the season of navigation, shows the essential power of the lakes to give the cities on their borders an advantage over those which have not free waters to connect their commerce; for by virtue of the grain and produce which seek the water for cheap transportation eastward in the warm season, a fleet of steam and sail vessels is in constant use to convey these products to Buffalo, Oswego and the St. Lawrence river. These vessels, which can only be freighted to any great extent at primary receiving points for bulky products, must seek return freights. Now, it is well known that the shipments from an agricultural country like that west of Lake Erie are far more bulky than the more valuable freights which are exchanged for them. Therefore, cargoes which will fill up in ballast like coal are sought and carried back from Buffalo to Toledo at mere nominal rates. Thus the hard coals from Pennsylvania are laid down as cheaply in Toledo, and almost as cheaply in Chicago as in Cleveland. In soft or bituminous coals the latter city has had one clear advantage for the past fifteen years by her proximity to a very valuable coal deposit south and southeast of her, for the shipment of which she is the nearest port, and for its profitable use in manufactures the nearest point which has a choice of water and land for the distribution of its products.

The growth of the city of Columbus, Ohio, as affected by the

opening of the coal mines of the counties southeast of her, and the construction, but a few years since, of the Columbus & Hocking Valley Railroad to these mines, has been most suggestive of the power of cheap coal to develop manufactures. But already the very superior quality of that coal and the almost unequaled facility its beds afford for cheap quarrying has developed the necessity of an access to water-ways to widen the market for it by its cheaper distribution. For that purpose a direct, almost an air-line, railroad is now being built from Columbus to Toledo, on grades that offer the minimum of impediment to cheap transportation. Another is projected and under way direct from the Perry county mines to Toledo. With these roads completed, Chicago, during the summer season, can be supplied with coal shipped from the railroad companies docks at Toledo more cheaply than by rail all the way from the mines. That coal must be cheaper at the point from which it is shipped than at the port where it is discharged is self-evident. Whichever way this coal may go by rail from the mines to Chicago it must traverse from 150 to 200 miles more of rail track than to get it to the company's docks at Toledo. No railway can carry coal per ton 150 miles as cheaply as it can be carried from Toledo to Chicago by vessel during the summer months.

But it may be suggested that Chicago is not dependent on the Pennsylvania, or the Northern Ohio, or the Hocking Valley and Straitsville coal fields for her supply. This is partly true and partly not true. It is true that coal fields are being developed in Southern Illinois and Indiana from which she has hoped to receive a copious supply of cheap fuel. But it is not true that their quality has been such as to relieve her of the necessity of depending *principally* on coals shipped from Buffalo and Cleveland. And it is a significant fact that *all the railways leading to Chicago from Ohio carry coal past the coal fields of Indiana and Illinois to that city; and the railroads that traverse the coal fields of these latter States do not bring any coal eastward.* Toledo, then, when her direct coal roads are completed, may fairly claim to be stronger, by virtue of cheaper fuel, than Chicago.

In alluding so much in detail to the power of the Pennsylvania

and Ohio coal fields to promote the prosperity of the ports of Lake Erie, which are to be made their principal depots, it may be proper to repeat that the varied good qualities of these coals, as well as the vastness of the beds and their easy access for quarrying, is the conclusive reason why they push their way past the coals of Indiana and Illinois. They not only embrace all the qualities most essential for domestic use, and the ordinary uses in manufacturing, but some of them can be used without coking in the manufacture of iron, as tested with most satisfactory results with the Hocking Valley coal in the iron furnaces of Columbus, Ohio. Some of these coals are also among the best for making gas.

If it shall be proved that the best qualities of coal are likely to be permanently cheaper at Toledo than at Chicago, and cheaper at the interior manufacturing centers east of Toledo than in those west of Toledo, it will add a heavy weight of industrial power on the side of Toledo.

As between Cleveland and Toledo, no advantage as to cheap fuel can be claimed for the latter. They are simply alike in that respect. It is by virtue of its position as a gathering and distributing point of exchange that Toledo's superiority is marked. And it has one other natural advantage over Cleveland in its twenty miles of water front on a broad river, protected from lake storms and easy of access from the lake; while that city is cramped in all its water commerce by the inconveniences of a tortuous narrow river channel upon which business is done, or else upon the dangerous outer docks of a tempestuous lake shore. This advantage of dock room and sea room for vessels will alone exercise a controlling influence in giving Toledo a steadily increasing power over the lake coal trade. It has another decided advantage over its thrifty rival in being on the direct route, both by water and railway, of the commerce between the Canadian Dominion and our most populous Western States. It is the inevitable focus of that trade.

Transportation for the productions of the earth, and for the works of man, embraces all that can be claimed of progress for the development of cities from barbarism to civilization. Trans-

portation, by land and water, in the various modes now in use, and hereafter to be brought into use, is the instrumentality which, in connection with those already presented, will determine the location of the future greatest city. Its location must have advantages for the construction and use of the best instruments for transportation, by land and by water, in all directions. It must be the most convenient place for the meeting of the greatest bulk and amount of commodities, and the greatest number of people. It will be where land and water transportation may conveniently meet, aid, and compete with each other; and where the world's commerce can make its exchanges with most equal advantage to all lands, in proportion to their relative commercial importance. The necessity for uniting land and water ways for commerce narrows the question of locality to the great lakes and great rivers of the North American plain. Which has the greater power to control the direction of commerce? *Assuredly commerce will tend in greatest volume where the competition of the two systems is most effective.*

The lake waters have manifested the superiority of their transportation power by building cities on their borders more rapidly than have the rivers. The two leading cities of the two systems of water transportation, Chicago and St. Louis, increased in population, from 1860 to 1870, as follows: Chicago, 189,528—172 per cent.; St. Louis, 150,091—110 per cent

The five largest of our lake cities, Chicago, Buffalo, Cleveland, Detroit, and Milwaukee numbered, in 1860, 324,620; in 1870, 657,155.

The five largest river cities of the interior, St. Louis, Cincinnati, Louisville, Pittsburgh, and Alleghany City, numbered, in 1860, 467,759; and in 1870, 767,272.

Increase of lake cities, 332,535, being 102 per cent. Increase of river cities, 299,513, being 60 per cent.

Previous census returns, since lake cities have had any commercial importance, were not less favourable to them. And it may be borne in mind, in connection with the relative percentage of growth between 1860 and 1870, that the river cities had a very great, though transitory advantage, in being made, to a much greater extent than

their lake rivals, the depots and disbursing points for the vast expenditures of the war of the rebellion. These expenditures in many of these cities built up great manufacturing interests that have become important factors in their continued prosperity.

Looking at permanent, and not at transitory, causes of growth, the river cities, however noble the size they may attain, may now be fairly ruled out of the list of final competitors for the highest position. Of the lake cities Milwaukee and Detroit are evidently barred out of the race by the superior power of position that Chicago and Toledo occupy in relation to each of them. Toledo, though the last to be ranked among the important cities of the lakes, in consequence of the dense timber-land surroundings which delayed her early growth, is now springing into the commercial arena with a strength of growth not surpassed in the present decade by even Chicago.

The author believes that the lakes will attract to their borders the densest population of the Continent. Instinctively people love an expanse of water. They take pleasure in the sight; they enjoy the fish in the catching and eating; they delight to breathe the invigorating air purified by contact with its surface; they profit by the cheapness of transportation from city to city along the shores, and by the supply of fish-food grown without cost. These lakes hold a central position in the most productive portion of the Continent. With the noble St. Lawrence outlet to the Atlantic they extend westward one-third of the distance to the Pacific. Their future commerce is of necessity to be intimately connected with that of Europe, with whose commerce we can connect by water only. To make this cheap, expeditious, and *direct* with the vast future population of this interior plain will call forth all the inventive genius and practical skill of Europe and America. More than half of all our foreign commerce is now and probably ever will be with Europe. Of this a very large proportion will ultimately communicate with the interior through the St. Lawrence river and its ship canals, to and from the lake cities.

If it is true that manufacturing industries will gather where food and fuel and raw products to be transformed are cheapest,

and where the routes of transportation are the most varied, extensive and economical, it will be hard to find any other points so commanding in all these respects as Toledo and Chicago. We claim the better position for the former, because it is believed that the center of the industrial power of the country will remain east of her longitude. In making this claim it is not necessary to underestimate the great destiny of such points as St. Louis, Louisville, Cincinnati and Cleveland. St. Louis and Cincinnati were both important and relatively wealthy cities when Chicago and Toledo sprung into existence. Chicago has almost overtaken the former, and Toledo is gaining rapidly on the latter. The race will in the future be between giants, and whichever in the end shall be least among these will at least be great among other cities. If the struggle may be narrowed down to the point which may prove strongest on Lake Erie, as against the point which has become strongest on Lake Michigan, the combined strength of Cleveland, Toledo and Detroit may be considered a unit as against Chicago. The three cities number now nearly the same population as Chicago. It is believed that in this decade they will show an aggregate percentage of growth equal to that of Chicago; though during the two preceding decades the growth of the latter city was much more rapid. After 1880 the author believes the cities of Lake Erie will show, and permanently maintain, the more rapid ratio of growth; and mutually strengthening each other, that they will so concentrate industrial power upon Lake Erie that one of them will, in the end rival and dominate Chicago.

In the climate where human brain and muscle have greatest activity and endurance, and where things called for by a high state of civilization can be brought together for use and exchange with least expenditure of time and money, the ultimate city of the human family will be developed. In its early life it will be seen to grow rapidly, by reason of its facility to procure cheap food, clothing, houses and fuel. These advantages continuing, and a higher life than a merely comfortable existence, procurable as well there as elsewhere, its growth will have no check, of long duration; but the law of progress, as shown in its first series of years, and

decades of years, will, probably, be the law of its maturing growth, for a period not easy to estimate.

The climate of the lake borders is invigorating and adapted to the best races of men. The breezes over the pure waters of these inland seas, and from the cultivated plains of Illinois, and the well-drained woodlands and fields of Ohio and Michigan, will possess the tonic power of the ocean winds. For healthfulness, the positions at the heads of Lakes Michigan and Erie, being elevated 600 feet above the ocean, are believed to be equal to that of New York. For transportation by water, in all directions, it may admit of question whether the advantage is on the side of the great Atlantic city or the rivals, hereafter to be developed, on the lakes. If New York claims to have all the oceans and their connecting navigable waters, the lake cities may claim that, before New York shall have brought the centre of the world's commerce from London, a good navigable passage for lake ships to the ocean will have been made for the cities of the great lakes, so as to place them in a position to participate in foreign commerce. But for *interior* commerce, which all concede to be far more important than foreign, the water channels, by lake, river and canal, which are immediately available for Chicago and Toledo, give these cities a great advantage over New York, for they extend in all directions, and have a natural concentration at these points. New York has only a water channel, for *interior* commerce, in one direction, to-wit: northward, up the Hudson river; yet this one channel of connection with the far interior by means of an artificial water-course, from the Hudson river to Lake Erie, was the main cause of its rapid domination over other Atlantic cities in commerce and capital. This river, with its entering canals, forms almost the only water-way it has for interior commerce.

Transport and interchanges by railways and wagon-roads may be made from Chicago and Toledo, to nearly all points of the compass, almost without obstruction, for long distances. Railroads are most naturally placed, and most profitably used, by the side of the best water-ways. Both these means of transportation seek the lowest levels, preferring to avoid the task of working against gravitation; commercial products, like other matters,

choosing a down grade rather than an up grade. The Appalachian range of mountains separate a mere margin of our country, lying east of them, from the great body of our lands spread out westward. New York occupies a central position in this marginal section. Two low passes through the mountains—one by the Mohawk river, and the other by Lake Champlain—are the only routes, unobstructed by mountain ranges, which are open to her choice, to afford her railway communication with the body of the nation, west of the mountains. These passes form her best channels of land transport, as well as the only channels of water transport, with the great central plain. Placed on the ocean border, New York can only have a little more than half the land, *within any given radius*, from which to obtain trade, which Chicago and Toledo have. These cities command the lowest passage-ways between the lake (St. Lawrence) basin and that of the Mississippi waters. The summit-level of the canal and railroad connecting Toledo and Cincinnati is but 400 feet above these cities which are on the same plane. The Wabash canal and railroad which connect Toledo with the Wabash valley, rise but 200 feet above the lake in a distance of 110 miles, before they descend towards the centre of the Mississippi basin, by an almost imperceptible grade. The margin of the lake basin is but a few miles from Chicago, and rises but 24 feet above the lake. Towards these low valleys the commerce of the country naturally gravitates. Along these channels the commerce between the great interior river system and the great lakes naturally flows. The river cities, Cincinnati, Louisville, Evansville, Paducah, Cairo, Memphis, St. Louis, Alton, Quincy, Keokuk, Burlington, Dubuque, Davenport, etc., will use these natural channels for their rapidly growing commerce with and through the great lakes. This advantage, alone, would secure to Chicago and Toledo pre-eminence among the lake cities.

Let us go back a little in our argument. Although London is now a greater centre of the commercial power of the world than any other city, it is only measurably so, in a unitary sense. The organization of society, *as one whole*, is yet too imperfect to call for the use of one all-directing head, and one central moving heart. In many things Paris claims pre-eminence, and many

other cities exist almost independent of London. It will only be the *ultimate* great city that will fully unite in itself the functions analogous to those of the human head and heart, in relation to the whole family of man. That ultimate crowning city will be in the interior of North America. "Earth's noblest empire is her last." Berkley was a true prophet. The centre of commercial power will carry with it the centre of moral and intellectual predominance. Its movement, controled by nature's great law, is steadily westward. Its semblance, forecasting the future, has arrived in England, and exists in London. Thence, westward, it can find no resting-place until it reaches New York. That city will stand, for a time, the precursor, the herald, of the *final* great city of the world, which, within a century, or a little more from this time, will have been established in the interior, where Chicago or Toledo now forms its nucleus. The same foreshadowing grounds of belief which compel conviction of the future pre-eminence of New York, exist and are potent in favor of the interior city as compared with the Atlantic capital. One hundred years is allowed for the building of the world's commercial capital in the world's best region. One hundred years, at our previous rate of increase, will give four duplications, and six hundred millions! Allowing, however, thirty-three and one-third years for future duplications, instead of twenty-five, and we have *three hundred millions as the result! Of these not less than two hundred and thirty millions will inhabit the interior plain, and the region west of it; and not over seventy millions will inhabit the margin east of the Appalachians.* What proportion of the two hundred and thirty millions will prefer to transact business with each other by crossing the mountains, carrying with them the articles to be exchanged, to New York, rather than to meet each other at the most conveniently located city in their midst? The productions of these two hundred and thirty millions, intended for exchange with each other, *will* meet at the most convenient point, central in time and cost, to their homes and exchangeable products.

Where will that point be? Chicago and Toledo are believed to be the true claimants for this high destiny. Which of these has the best position to become the ultimate great city?

estimating the relative claims of these two young cities to have the greater future, no concession is made to the present popular opinion which would, without doubt, decide in favour of the larger city. I believe Toledo occupies a better position. Some reasons for this belief have been submitted.

It seems, on examining the two cities on the map of the United States, that Chicago is more central for gathering in north-western commerce. I concede this. If there were no counter-balancing power in the commerce of the States, east of Toledo; of the country east and north of the great lakes, and of the Atlantic, on all its extended shores, and a rival of Chicago at the west end of Lake Superior, to come into the account, Toledo would not be thought of as a successful rival of Chicago. But, for many years, the centre of industrial power of the world will be not only east of Toledo but east of New York. As before remarked, it is endeavoring to establish itself in London. It will make a stronger and more successful effort to establish itself in New York. In thirty years New York will become the acknowledged successful rival of London. Within the next fifty years it will have established its superiority over all former rivals. It will then experience the effects of the inevitable law of western progress. The centre of the world's industrial power will be on its way westward of New York. After leaving that city, where will be its resting-place?

The centre of the population of the United States, in 1790, was in Maryland. It has since moved steadily in a direction north of west. In 1850 it was near Pittsburg. In 1860 it was in south-eastern Ohio. If the Provinces north of us are included, the centre of population is now* not far from Canton, Stark County, Ohio. If there were no ocean commerce to be taken into the calculation, Buffalo would now be as near the centre of the industrial power of our country as any other city, having decided commercial advantages. When the centre of the industrial power of the world shall tremble in the balance between New York and its western rival, Buffalo will be too distant from the great river commerce and the great railway concentration of

* Written in 1868.

the interior plain; and the centre of commercial power of the continent will be too far west of it. The movement of this centre of population and industrial power is, undeniably, in the direction of Toledo. Before reaching Toledo there is no position, on or near its movement, so favorable to a great concentration of commerce, as to arrest its progress. Cleveland will be the least distant, but her advantages are obviously less than those of Toledo. It will probably be conceded that, if the centre of the industrial power of the world ever leaves New York to establish a rival city in the North American plain, it will come as far west as Toledo. Will it move farther; and, if it does, will it rest in Chicago? The reasons for making Toledo its first and permanent resting-place are numerous. The centre of industrial power will for many years be nearer to Toledo than to Chicago. One hundred and ten miles will have to be passed over; and when, if ever, that distance is accomplished, Toledo will have the weight of commercial power on her side. All the time when this centre is approaching Toledo from the east, and when, if ever, it proceeds so far west as to be nearer Chicago the advantage will be with Toledo. A line drawn on the map equi-distant from Chicago and Toledo, and bearing northward and southward will, extended northward, cut Lake Michigan west of its outlet, and also west of the outlet of Lake Superior. Extended southwardly it goes through Indianapolis and Nashville to Pensacola, on the gulf. All the country east of this middle line is nearer Toledo than Chicago, and other things being equal should prefer it as the concentrating point of its commerce.

It will be seen on inspection of this line of equal distance that it shows all the great lake waters, except Lake Michigan, nearer Toledo than Chicago; Lakes Erie and Ontario, by over 700 miles; Lake Huron, on the average of its shores, of some 200 miles, and Lake Superior about 60 miles. This is a great advantage, for the annual commerce of these lakes (including Michigan), already in its infancy, exceeds in value one thousand millions of dollars. It employs over two thousand vessels, aggregating nearly one million tons, transporting annually (as represented by ALVIN BRONSON, a high authority) twenty-eight million tons. This commerce will

be duplicated several times before the time to which our investigation is carried; and its improved and ample water-way to the ocean will have been a long time in use. The interior navigation furnished by lake waters nearer Toledo than Chicago, counting distance along the shores, measures more than four thousand miles.

From the line of equal distance eastward, Toledo has, nearer to her, nearly all the Canadas, all the British Provinces east of the Canadas, two-thirds of the lower peninsula of Michigan, more than one-third of Indiana, three-fourths of Kentucky, half of Tennessee, more than half of Alabama, and all of the sixteen States eastward of those named above. Nearly all the great centres of business on this Continent lie within easier communication with Toledo, to-wit: Portland, Boston, Providence, New York, Philadelphia, Baltimore, Washington, Richmond, Charleston, Savannah, Louisville, Cincinnati, Cleveland, Detroit, Buffalo, Toronto, Rochester, Albany, Montreal, Quebec, etc.; while Chicago only has within its limits (I say *its* limits, for it will be noted that I am dividing the future claim to final pre-eminence in the commerce of the world, between these embryo cities), New Orleans, Mobile, Memphis. St. Louis, Milwaukee, San Francisco, Sacramento, and many minor cities growing up rapidly on the Mississippi and Missouri rivers. Of ocean commerce Toledo will have on her side that of the Atlantic, and Chicago on her side that of the Pacific. Supposing, then, these lake cities competing, in the final struggle, to become the greatest central emporium of commerce, the balance of industrial power seems altogether favorable to the more eastern one.*

What are the special claims of Chicago? First and greatest is a population seven times as large as that of Toledo, which, with the prestige its more rapid development has given it, has enabled it to concentrate capital and influence only to be equaled by its rival after a struggle of many years. Up to this time Chicago has had a great advantage over Toledo in the more rapid development of the country brought within her commercial control, by

* The strong growth of the fine interior city of Indianapolis, with no water connection for commerce, and situated nearly equi-distant from Toledo, St. Louis and Chicago, illustrates the power of railways to create minor foci of exchanges by virtue of the same *law of convenience* to which we have before referred.

being made suddenly the focus of a complete system of railways constructed with a rapidity never before equaled in the history of public improvements. These railways, traversing for hundreds of miles, in many directions, fertile prairie lands, requiring but a minimum of labor to bring them under cultivation, have been, in various ways, the means of effecting a wonderfully rapid settlement of those vast prairies, so that they have already, to a great extent, approached the maximum of their products exportable through Chicago. Toledo, on the other hand, has been surrounded by a dense forest of timber for hundreds of miles, which the tide of immigration for many years avoided. The demand for timber is now opening this forest of rich lands to cultivation, with profit to the owners; so that, with the extension of railways in progress and about to be constructed for the benefit of Toledo, a more even race with the prairie city may be relied on. Indeed, it will be strange if the woodland city does not soon exhibit decided proofs of a higher rate of progress.

The population of the whole country, including the British Provinces north of our boundary, will exceed eighty millions A.D. 1900. To bring it up to that number will not require a progress as rapid as the average rate since 1790. Of this number fifty million at least will be nearer Toledo and Chicago than to New York. If foreign commerce were out of the question the principal exchanges of the country would be made in Toledo rather than in New York, for the plain reason that they could be made quicker and cheaper. But New York will then be nearer Europe, and all the commerce of the Atlantic south of Quebec. The comparison will stand as follows:—Toledo with the advantage of being the more natural centre for fifty million at home; and New York with the special advantage of say four hundred million of foreign population, distant from one thousand to twenty thousand miles. Supposing the home trade to be worth fifteen times as much, in proportion to population, as the foreign commerce, the number of people, nearer Toledo, will equal three hundred and fifty million of foreigners in excess of the number actually nearer New York. New York would possess the advantage of having already the capital

and other appliances to perform the duties of chief city of the world. What portion of the foreign commerce may fall to the share of the interior city before the year 1900 cannot be estimated, and, for that reason, is left out of the comparison.

It is not claimed that Toledo or Chicago will lead our great Atlantic city in a life-time. But how will they stand in 50 years—Anno Domini 1920? Before that year there will be several Pacific railways spanning the Continent, and several large cities on the Pacific side of the Continent, gathering in the commerce of the North Pacific, and prepared to carry on a great commerce with the leading cities of the interior plain, and of the Atlantic border. The commerce gathered in the Pacific cities will meet somewhere the gathered commerce of the Atlantic, centred now chiefly in New York, Boston and Montreal. The best portions of Europe and Asia will strike hands over our Continent. Where will be the place of their meeting? Will it be New York? Our home commercial system will then embrace about one hundred and thirty million. Of this number there will live not less than ninety-five million nearer Toledo than to New York! and some thirty-five million nearer to New York; giving an excess of home population of sixty million in favor of Toledo—equal, in commercial power, to nine hundred million foreigners. New York will not then monopolize our foreign commerce. All the commerce commanded by the Gulf of St. Lawrence and Hudson's Bay may be more conveniently brought into connection with Toledo. There will then be the Pacific commerce, in the track of which, between the two oceans, Toledo and Chicago will be situated. It is not for us to know what extension of the commerce of eastern Asia with the United States will take place in the coming fifty years. It seems probable that there will be a large migration from Japan, China, and possibly India, to the western coast of our country. Our undeveloped resources call for all the labor and skill which can be brought from the over-peopled lands of Asia and Europe. Hunger is an imperative master which will bring to the land of plenty many millions now suffering under its power. It would be to leave an important element out of the calculation not to give much weight to the effect this anticipated migration of the Asiatics may have in determining the position of the great cen-

tral city of 1970—or, indeed, of the city of 1920. The coming 50 years will probably do more for the concentration of the world's traffic than all the years of the past. It is but 61 years since Fulton demonstrated the practicability of using steam as a motive power in navigation, and it was not till many years after that it became much more than an experiment. Now all waters are witnesses of its triumphs. Steam-propelled cars and ships will, before the 50 years shall have passed, bring within their power the great body of the world's commerce, and cause all races of men to fraternize in commercial transactions. It is but 40 years since the first locomotive on a railway (the Liverpool and Manchester) proved its power to draw with much speed a train of cars. This year 1868 will scarcely pass before it will triumph over the Rocky Mountains, in its passage across the broad Continent of North America. It is not unreasonable to anticipate that an iron or steel track will, before the end of fifty years, bestride the great Eastern Continent from the North Sea and British Channel, around which the commerce of Europe centres, to the Yellow Sea of the Pacific, the central sea of the commerce of eastern Asia. It is quite evident, even now, that *commerce moved on land will very soon be vastly greater than commerce moved on the water*, though the means by which both are carried on will be greatly improved.

In large portions of our Continent every acre may furnish food for land commerce, whereas, the oceans and great seas are almost waste places in the lack of means to furnish commercial equivalents. Until a few years past transportation, by land, has been so slow and costly that cities on the borders of the great seas possessed great advantage of intercourse over interior cities, and, in consequence, almost monopolized the world's great commerce. A revolution is now in rapid progress that will change the relations of these localities, and give to interior positions a controlling advantage over those on the ocean borders. As yet few persons seem to appreciate this great revolution in its power to change the places best for concentrating the world's commerce. Chicago and Toledo unite in a marked degree the advantages of both land and water transport. The coasts of the great lakes, some 5,000 miles in extent, offer a large field for

home navigation, and the certainty of a commodious water channel, connecting them with the ocean, ensures to them advantages of navigable intercourse with the outer world. When the fertile lands around them become densely filled with an industrious and intelligent population, it is difficult to imagine impeding causes that can prevent them from becoming the great centres of the trade of our Continent. The probability of the attainment of such high destiny will, when known, induce men of intelligence to select for themselves and families homes in and near these cities. The climate for pleasantness and health is among the best east of the elevated plateau of the Rocky Mountains. Each has, on the borders of its home lake, a fruit climate and soil not excelled, if equaled, east of that plateau.

If it is true that the movement of human power is so surely westward as to make it reasonably certain that New York will become greater than London; if it is true that this movement will carry a great preponderance of numbers and wealth into the great central plain; if it is true that the home commerce of the continent, moved on land and water, is now greatly in excess of its foreign commerce, and constantly increasing in proportion; if it is true that this home commerce concentrates more and more in cities of the interior plain; if it is true that the lake cities concentrate this home commerce more than the river cities of the plain; if it is true that, of all the lake cities, Chicago and Toledo grow faster, by virtue of their power to bring to themselves a greater primary commerce than any other lake cities; if commerce by land is becoming much more important, in our country, than commerce by water; if all the elements that promote manufacturing industries are there found most abundantly; if all these are true facts, does it not follow, as surely as the day succeeds the night, that the great city of the future will be in our great interior plain; and, with reasonable certainty, may it not be anticipated that Chicago or Toledo will be that city?

Is it because Chicago is further west than Toledo and so commands a larger extent of country, in that direction, that it has so far outstripped its sister of Lake Erie: or is it owing to some other cause than a superiority of position? Is not the *sufficient* cause found in the facility of opening land to cultivation afforded

by the inviting prairie on all sides of the former, and the difficulty of divesting the soil of the heavy forest surrounding the latter? To test the relative merit of the *position* of these cities respectively, let us suppose Chicago to have been surrounded by a dense forest, and the whole country within the reach of its natural commercial command, like that which surrounded Toledo in 1832; which, in that condition, would now be the greater? Does any one doubt that it would be Toledo? Again; let us imagine Toledo, at that time, surrounded by a region of prairies, like that of Chicago, and that from the west end of Lake Erie had radiated that almost magical development of railways, which peopled the States around that city, so that the merit of position, alone, had determined their relative growth. Can there be a doubt that Toledo, now, would be the greater city? It is, then, the prairies, *only*, which has given Chicago the preference. It is, then, the forest that has retarded the growth of Toledo. What will be the effect of prairie and forest on these cities hereafter? The prairies will, to a large extent, be monopolized by large holders, be cultivated by machinery, and so be sparsely inhabited. The forest impediment to cultivation will every year grow less. Already in considerable portions its removal is a source of profit. It is becoming an important source of revenue. It is being divided into small holdings, tending to a greater density of population.

If now the *position* of Toledo has been inferior, *only* because of the advantage to Chicago of her prairies, that inferiority is being removed and becomes a superiority when, in addition to the advantage of having the ground in sufficient quantity opened for use, there remains a valuable supply of timber land interspersed and available for the various purposes of advancing art in city and country at home, and for export abroad.

And now may it not be justly claimed that the westward movement of human power will, much within one hundred years, bring the world's great centre of commerce to New York, and, if to New York, then to an interior city—if to an interior city, then to a lake city—and if to a lake city, then to Toledo or Chicago, as the natural advantages of position shall finally prove more powerful to favor the one or the other?

One hundred years! What may we not hope of development in that period—long, if measured by the duration of human life; short for the life of a nation, and very short in comparison with the life of the human race. Looking back one hundred years, we find that some 4,000,000 of population of British Colonies have grown to 40,000,000. New York then was about two-thirds the size of Toledo now. Our city population has increased more than thirty fold. Our wealth has increased faster than our cities. One hundred years to come, with the command of steam, electricity, and we know not what other and superior agencies for wonder-working, can scarcely fail to produce results of a magnitude beyond the power of the most vigorous imagination to conceive. The cities of western Europe are grand out-growths of modern improvements, but they will be deemed, in their present condition, rude and small in comparison with the vast emporiums which, in one hundred years, will grow up on our continent.

A Brief History of
THE BLADE PRINTING & PAPER CO.
ONE OF THE
OLDEST PRINTING ESTABLISHMENTS IN OHIO

ONE hundred and one years ago, the Toledo Blade Newspaper was founded, and in addition to its publishing business operated a Book and Job Printing plant. In 1873, when the entire plant was owned by Locke and Jones, the Job Departments and Store were sold to the newly organized The Blade Printing & Paper Co., composed of the following men: David R. Locke, John Paul Jones, Geo. D. Clafin, Geo. W. Campbell, Thomas J. Brown, Samuel Andrews and Daniel Nitschke. There are men still living who were personally acquainted with some of them.

DAVID R. LOCKE, better known as Petroleum V. Nasby, was the first President. He gained national fame as an editorial writer and humorist, and was the author of many books.

JOHN PAUL JONES was the second President. During this period were published by the Blade Press many works of local interest. Beside the several works of Mr. Locke, were "Knapp's History of the Maumee Valley;" Jessup W. Scott's "The Future Great City of the World;" "Steedman and his Men at Chickamauga;" "The Rights of the People in Money" by Geo. Williams, and "Natural History of Western Wild Animals." There are many others, mostly cloth bound editions.

SAMUEL ANDREWS was the third President. At the age of ten he lived with his parents in a log cabin at Summit and Elm streets. His first job was as a newsboy for The Toledo Blade. When he retired as President he had been employed by The Blade forty-nine years.

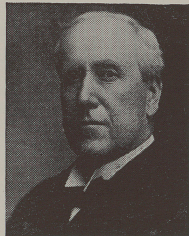
THOMAS J. BROWN was the fourth President. He was succeeded by Samuel M. Young, and on the death of Mr. Young was again elected President. He too was first employed as a newsboy and at the time of his death was the head of The Brown Eager & Hull Co. His was a history of accomplishment, rising step by step to the head of the house he instituted.

SAMUEL M. YOUNG was the fifth President. He was one of Toledo's most distinguished citizens, and as a prominent lawyer and banker had a great influence upon the growth and development of the city.

PAST AND PRESENT OFFICERS
OF
THE BLADE PRINTING & PAPER CO.
1873 to 1937



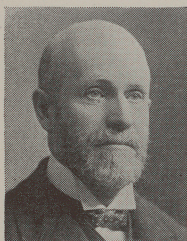
DAVID R. LOCKE



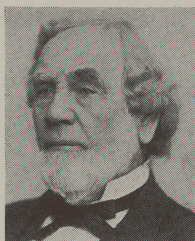
JOHN PAUL JONES



SAMUEL ANDREWS



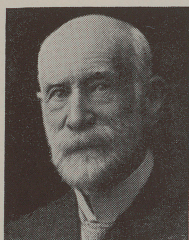
THOMAS J. BROWN



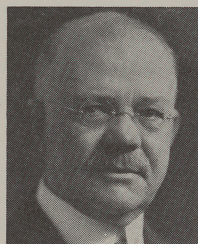
SAMUEL M. YOUNG



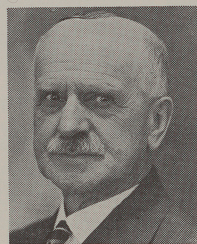
MORRISON W. YOUNG



GEORGE D. CLAFLIN



CHARLES H. SHIELDS



HENRY F. BLIEMEISTER

MORRISON W. YOUNG, the next President, son of Samuel M. Young the fifth President, also served as President of The Toledo Trust Co. and later Chairman of the Board. Considered primarily a builder and not an accumulator of wealth, he was of a rather modest and retiring nature, kind to his associates, unostentatiously charitable. He fully trusted those placed in responsible positions and under his leadership the Company had many years of successful operation.

GEORGE D. CLAFLIN served as Secretary and Treasurer of the Company from the time of its incorporation in 1873 up to June 1911 when he resigned. He was responsible for the development of the Wholesale Paper and Stationery Departments of the Company's business, which in a few years became widely known and recognized as one of the largest distributors of paper in the Middle West.

H. F. BLIEMEISTER was connected with the company for more than fifty years, serving as Secretary and Treasurer from 1911 until his death in July 1935.

CHARLES H. SHIELDS, elected President at the death of Mr. Young and now serving in that office, entered the Company's employ October 6th, 1886. He was made Superintendent in 1892 and Vice-President and General Manager in 1912. So he has worked steadily for 51 years helping to build up this old established business—"old in years but young in spirit."

Our printing and binding departments do a great variety of work, from the smallest office or factory form to large catalog editions and fine color printing.

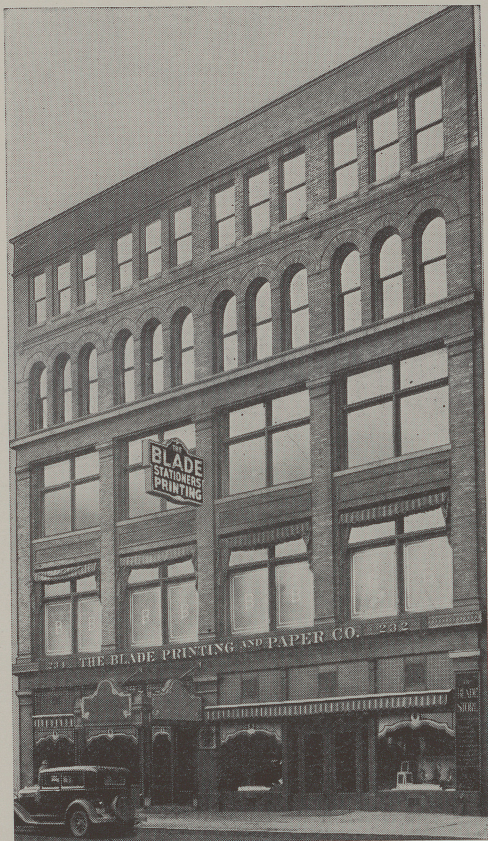
Our Bindery is equipped to handle all kind of work; we have our own ruling, folding, punching and indexing machines, besides many other machines for special purposes.

This department manufactures special blank books and various styles of bindings as well as Loose Leaf Goods of all kinds.

The Toledo Directory has been turned out in our plant during the entire period of its publication.

Until the period of depression struck in 1930, the Blade for fifty years never missed a dividend. During all that period the employees shared with the Blade in its prosperity.

The Blade today through good management, honest service, sacrifice of its loyal employees and the faithful friendships of its customers, faces a future bright with hope.



THE BLADE PRINTING & PAPER CO.

Leading Printers, Stationers and Binders
of Northwestern Ohio

232-234 Superior St.

TOLEDO, OHIO

